The Intersection of Data Governance and IT Responsibilities Self-Assessment

Self-Assessment Tool

Statewide Longitudinal Data Systems Grant Program

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A Product of the SLDS Grant Program State Support Team

Contents

This product of the Statewide Longitudinal Data Systems (SLDS) Grant Program State Support Team was developed with the help of knowledgeable staff from state education agencies and partner organizations. The content of this publication was developed by the SLDS Data Governance and IT Collaboration Workgroup. The information presented does not necessarily represent the opinions of the SLDS Grant Program.

For more information on the SLDS Grant Program or for support with data system development, please visit *https://nces.ed.gov/programs/SLDS.*

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Introduction

Data governance refers to the overall management of data in a system, including the data's availability, usability, integrity, quality, and security. It is the means by which organizations or groups of organizations make collaborative decisions about their collective information assets. Data governance is foundational to a sustainable statewide longitudinal data system (SLDS).

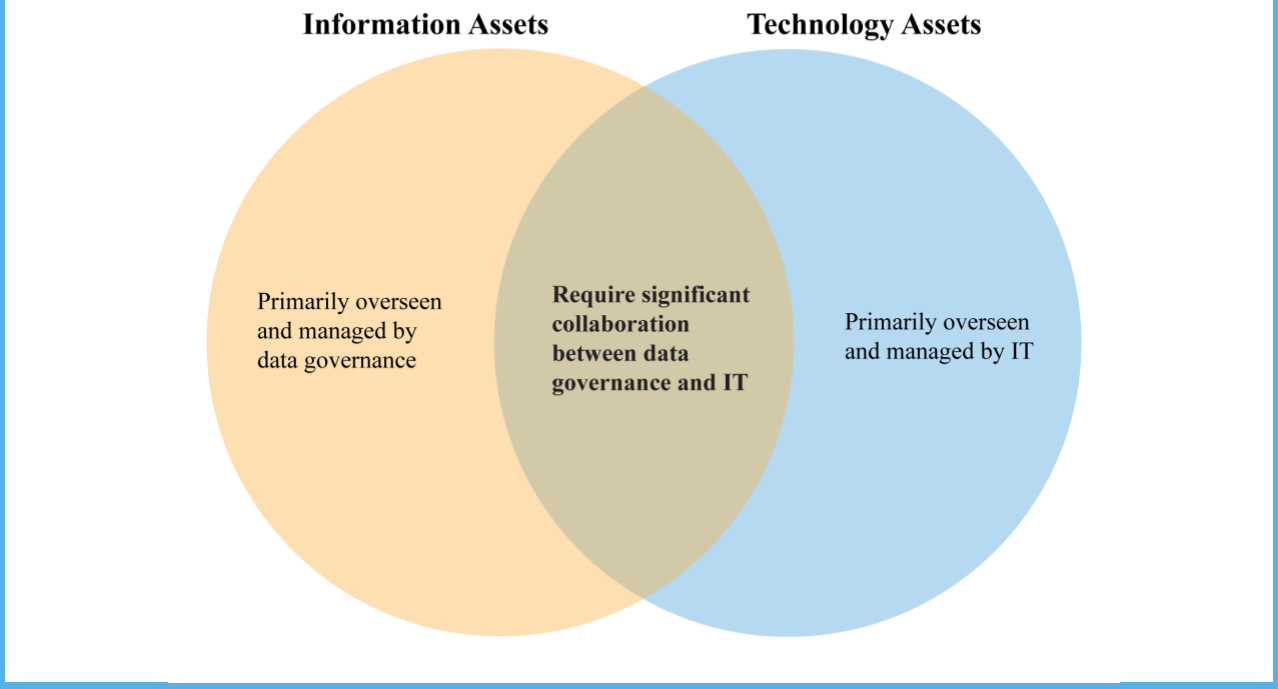
Data governance is both an organizational process and a structure. It establishes responsibility for data, organizing program area staff to collaboratively and continuously improve data quality and use through the systematic creation and enforcement of policies, roles, responsibilities, and procedures. Data governance includes establishing governing bodies within agencies as well as across P-20W+ (early childhood through workforce) SLDS partner agencies.

Information technology (IT) governance processes provide a structure for aligning IT strategy with the organization's overall strategy, including ensuring that the current and future use of IT is directed and controlled to support the organization's strategic agenda and related initiatives and processes.

IT governance processes ensure that IT and program area leaders plan and manage IT resources such as people, equipment, and money in a collaborative manner with the best interest of the overall organization and its goals in mind. During this process, staff and stakeholders' interests and needs are taken into account.

IT guides decisions regarding the development or acquisition of data systems and infrastructure. It helps ensure that new solutions conform to a well-planned and -designed future state; are integrated with the current systems; and have the proper program area participation for planning, implementing, and operating the systems.

FIGURE 1. The relationship between data governance and IT



The relationship between data governance and IT

Because data governance oversees an organization's information assets and IT oversees an organization's technology assets, the interests and activities of both groups are closely aligned (**FIGURE 1** on page 2). Information assets rely on technical infrastructure and staffing support for every phase of the information cycle. Numerous organizational policies and processes, including project management and procurement, also require the involvement of and collaboration between data governance and IT to be implemented effectively.

Purpose

The purpose of this self-assessment is to (1) help states identify the current, respective roles of data governance and IT regarding policies and processes that require collaboration between these two groups; (2) identify differences of perception, gaps, and redundancies regarding those roles; (3) determine policies and processes requiring changes in roles to be more effective; and (4) identify actions to implement those changes.

The self-assessment is organized by common areas of data system management and topics within those areas that require collaboration between data governance and IT to be effectively executed. The self-assessment covers the following areas:

1. Project Management
2. Procurement
3. Service Level Agreements
4. Documentation
5. Adding New Participating Entities or Programs
6. Metadata Maintenance
7. Master Data Management
8. Data Matching
9. Data Collection
10. Data Retention
11. Data Quality
12. Data Use Priorities
13. Data Requests
14. Data Sharing Agreements/Memoranda of Understanding (MOUs)
15. Data Release and Reporting
16. Data Privacy and Confidentiality
17. Data Security

Instructions

1. Ask data governance and IT representatives to complete the self-assessment **as two separate groups**. Each group should complete all columns in the assessment tables for each topic, assessing both their own and the other group's current role.
2. For each topic in the self-assessment, determine the role of data governance and of IT. In the *Data Governance* and *IT* columns, indicate whether the group is
    - **Responsible**: the group is ultimately answerable for the execution of the policy, process or task;
    - **Consulted**: the group provides advice or input for the policy, process or task;
    - **Informed**: the group is kept up to date about the policy, process, or task but does not provide input;

- **Unknown:** you do not know the group's role; or
- **Not Applicable (N/A):** your organization does not have or conduct this policy, process, or task.

3. Use the *Issues and Comments* column to note challenges in each area of work due to unclear, redundant, or unassigned responsibilities and where the responsibilities vary for different aspects of the topic. Participants also may want to record ideas for how to address these challenges, as well as to note ideas regarding the desired future state of data governance and IT roles.
4. Convene the data governance and IT representatives to discuss results of the self-assessment together, focusing on how the two groups' responses compare and opportunities for clarifying and addressing redundancies and gaps in responsibilities.
5. Use the *Next Steps* section to prioritize areas of focus, define the desired future state for each area, and determine next steps.

Additional Resources

SLDS Data Governance Toolkit
https://slds.ed.gov/#program/data-governance

SLDS Guide: Single Agency Data Governance: Roles and Responsibilities
https://slds.ed.gov/#communities/pdc/documents/17092

SLDS Guide: Interagency Data Governance: Roles and Responsibilities
https://slds.ed.gov/#communities/pdc/documents/17093

The Intersection of Data Governance and IT Responsibilities Self-Assessment and Supplemental Resources
https://slds.ed.gov/#communities/pdc/documents/18451

Self-Assessment

1. Project Management

Documented and implemented policy and processes to ensure that the data and technical needs of projects of significant scope are proactively identified by the data governance and IT groups and are addressed in alignment with data governance principles and IT standards.

Topic	Data Governance	IT	Issues and Comments
Ensure that the project adheres to data standards and data governance principles, and identify data collection, quality, and reporting implications			
Ensure that the project aligns with IT standards and enterprise architecture *Many states require that technical projects of a certain size or cost be developed in collaboration with a central state IT agency and adhere to state policies and standards.*			
Determine needed allocation of resources and impact analysis *Identify the internal staff roles and full-time employees necessary to support the data and IT needs of the effort.*			

2. Procurement

Documented and implemented policy and processes to ensure that the data and technical needs of procurements of significant scope are proactively identified by data governance and IT and are addressed in alignment with data governance principles and IT standards.

Topic	Data Governance	IT	Issues and Comments
Identify and communicate the need for procurement			
Ensure that procurement adheres to data standards and data governance principles, and identify data collection, quality, and reporting implications			
Ensure that the project aligns with IT standards and enterprise architecture *Many states require that technical procurements of a certain size or cost be developed in collaboration with a central state IT agency and adhere to state policies and standards.*			
Lead procurement process engagement			
Determine needed allocation of resources and impact analysis *Identify the internal staff roles and full-time employees necessary to support the data and IT needs of the effort once the vendor support ends.*			

3. Service Level Agreements

Documented commitments between the service provider and the client regarding level of service expected, including the metrics by which service is measured and remedies or penalties if service levels are not achieved.

Topic	Data Governance	IT	Issues and Comments
Collection systems *If data collection is automated without users submitting data manually, both the receiving and serving architecture should be considered in service level agreements.*			
Hardware/infrastructure			
IT resource/staffing commitments *Identify the IT staff roles and time commitments of each role.*			

4. Documentation

Policies, processes, decisions, and business rules documented, maintained, and stored in a place accessible by all relevant staff. All documentation should follow a standardized and consistent format.

Topic	Data Governance	IT	Issues and Comments
Data policies and processes			
System/IT policies and processes			
Business rules			
Storage location			

5. Adding New Participating Organizations or Programs

Documented and implemented policy and process for proposing, reviewing, approving, and inducting new organizations into the interagency SLDS and new programs into the single agency SLDS, including criteria for eligibility.

Topic	Data Governance	IT	Issues and Comments
Establish and oversee policy			
Liaise with legal counsel			
Define scope of data to include in the SLDS			
Oversee development and approval of the data sharing agreement/MOU *The agreement includes the rationale for including the new data.*			

6. Metadata Maintenance

A documented policy and process for documenting, maintaining, and making available descriptive information about data.

Topic	Data Governance	IT	Issues and Comments
Standards mapping *Mapping is the process of matching data elements from a source system to an established standard with a shared and understood definition (e.g., the Common Education Data Standards (CEDS)).*			
Data inventory *The inventory is a high-level description of the contents of an organization's information assets.*			
Data dictionary *The dictionary contains a detailed set of information describing the contents, format, and structure of a database, including data element attributes such as definition, option sets, and allowable values.*			
Data collection calendar *The calendar contains a detailed description of what data are collected when and for what purpose(s).*			
Lineage *The lineage is a description and/or visual representation of the data's origin (source collection); any transitions, modifications, or enrichments made to the data; and where the data move over time.*			

7. Master Data Management

For enterprise data elements contributed by more than one source, a single source of record is determined and documented. Master data management is the management of shared critical data to meet organization goals.

Topic	Data Governance	IT	Issues and Comments
Identify the single source of record *Determine and document the source of record and note any secondary sources that were considered and why they are not the source of record.*			
Create and maintain technical infrastructure to support master data management			
Make the single source of record accessible to all intended users			

8. Data Matching

Documented and implemented data matching process, including quality controls to reduce over- and under-matching in automated and manual procedures.

Topic	Data Governance	IT	Issues and Comments
Identify, implement, and maintain algorithms for automated matching			
Establish, implement, and maintain resolution processes for near matches using manual reviews			
Establish, implement, and maintain processes to standardize data, decouple shared IDs, merge duplicates, and eliminate incomplete or erroneous records			
Evaluate matching algorithm			

9. Data Collection

Agreement and documentation (by all agencies involved, if an interagency SLDS) of the data elements collected, including the process to prepare and submit data to the system.

Topic	Data Governance	IT	Issues and Comments
Scheduled review *Schedule a regular (ideally annual) examination of all data elements collected and their current use to assess whether any changes are necessary.*			
Determine new elements needed *Establish a process to identify new data required to fulfill federal or state requirements or policy research questions, including definitions, business rules, necessary timing, and other details.*			
Retire data elements and collections *Establish a process for ceasing the collection of data when they are no longer required, including documenting the reason for retirement.*			

10. Data Retention

Documented and implemented policy and process for maintaining, archiving, and destroying data to meet legal and business requirements in accordance with state laws and interagency agreements. These procedures include but are not limited to production, backup, user acceptance testing, training, and cloud-stored data.

Topic	Data Governance	IT	Issues and Comments
Establish a policy and procedures to determine data retention timeframes for operational, reporting, and archived data			
Manage litigation holds and determine storage parameters			
Establish and maintain data archive storage parameters			
Enforce data destruction timeframes			

11. Data Quality

Documented and implemented policies and processes to ensure that data are accurate, complete, timely, and relevant to stakeholder needs.

Topic	Data Governance	IT	Issues and Comments
Identify critical data issues *Determine the barriers that impede the quality, availability, and use of data (e.g., new legislation requiring additional public reporting, replacement of a source system).*			
Establish escalation/resolution process			
Determine data validation rules *Establish rules to ensure that source data are accurate, complete, consistent, and conform to business rules.*			
Enforce data validation rules *Check the quality of source data to ensure that they are accurate, complete, consistent, and conform to business rules before using, importing, or otherwise processing them.*			
Data audit *The audit assesses how well the organization's data can serve a given purpose. A data audit involves profiling the data and assessing the impact of poor-quality data on the organization's performance.*			

12. Data Use Priorities

Documented and implemented policy priorities, research agenda, or other set of data use priorities that is used to prioritize the creation of data products and the response to external data requests.

Topic	Data Governance	IT	Issues and Comments
Create standardized, aggregate, public datasets			
Establish an interagency/agency research or policy agenda			
Set policy and programmatic priorities for data use			
Create data visualizations *Work with intended users to develop reports, dashboards, and other compilations of data for internal or external use.*			

13. Data Requests

Documented and implemented policy and process for submitting, reviewing, approving, and fulfilling data requests.

Topic	Data Governance	IT	Issues and Comments
Establish policy and process			
Oversee the development and approval of a data sharing agreement/MOU *This work includes serving as the liaison with applicable legal counsel.*			
Oversee workflow and data delivery *Establish and execute the process for compiling and providing the dataset to the requester.*			
Monitor and enforce terms and conditions *This work may include ensuring review of draft products before release, no redisclosure of data to other parties, and destruction of data.*			

14. Data Sharing Agreements/MOUs

Documented and implemented policy and process to establish, maintain, update, and enforce all data sharing agreements or memoranda of understanding (MOU)s.

Topic	Data Governance	IT	Issues and Comments
Create agreements in compliance with applicable federal and state laws, rules, and policies *Examples of applicable laws include the Family Educational Rights and Privacy Act (FERPA) and Health Insurance Portability and Accountability Act (HIPAA).*			
Liaise with legal counsel for input and approval			
Review existing agreements *Ensure that agreements meet current federal and state laws, rules, and policies, and update agreements with amendments and extensions.*			
Monitor and enforce terms and conditions *Monitoring and enforcement may include ensuring review of draft products before release, no redisclosure of data to other parties, and destruction of data.*			

15. Data Release and Reporting

Documented and implemented policy and process for ensuring that data and data products from the system have been (1) created in accordance with reporting standards to ensure sufficient data privacy, quality, and consistency over time; (2) validated by the appropriate staff; and (3) approved by the appropriate staff.

Topic	Data Governance	IT	Issues and Comments
Ensure appropriate data source(s) *Use a consistent single source of record and established calculations and metrics across program areas and IT.*			
Ensure compliance with disclosure avoidance policies *Data preparation includes a documented process to avoid disclosure of personally identifiable information via blurring and/or suppression of small cell sizes and related cells in accordance with state or agency policy.*			
Notify and allow review by contributing agency or agencies *Before data are released externally, applicable agency staff are informed and provided a preview.*			
Determine data format and visualization *Identify the form that the data output should take, including any graphics, associated metadata and other descriptive text, and accessibility features.*			

16. Data Privacy and Confidentiality

Documented and implemented policy, processes, and training to ensure that participating entities and external data requesters follow all relevant federal and state privacy and confidentiality laws and regulations.

Topic	Data Governance	IT	Issues and Comments
Establish policies for opt out, disclosure avoidance, de-identification, and access and use ***Opt out:*** *A student, or a parent on the student's behalf, requests that their records be excluded from data reporting.* ***Disclosure avoidance:*** *Efforts are made to de-identify data in order to reduce the risk of disclosure of personally identifiable information.* ***De-identification:*** *Any personally identifiable information in individual records is removed or obscured in a way that minimizes the risk of unintended disclosure of the identity of individuals and information about them.*			
Implement and enforce opt-out policy *A student, or parent on the student's behalf, requests that their records be excluded from data reporting. Collect, record, and comply with opt-out requests.*			
Implement and enforce suppression policy *Data are removed (e.g., from a cell or a row in a table) to prevent the identification of individuals in small groups or those with unique characteristics.*			
Implement and enforce de-identification policy *Any personally identifiable information is removed or obscured from individual records in a way that minimizes the risk of unintended disclosure of the identity of individuals and information about them.*			

Implement and enforce access and use policy			
Deliver data privacy training			

17. Data Security

Documented and implemented policy and processes for protections—including training—to ensure that data are securely transmitted, stored, and released in compliance with all applicable state laws, policies, and regulations.

Topic	Data Governance	IT	Issues and Comments
Establish policy and process(es)			
Establish and maintain baseline enterprise infrastructure following state security standards			
Review and maintain security measures			
Establish and implement data incident prevention and response processes *These processes are covered by state and local agency plans, including action and communication protocols that align with agency policies and state-specific data incident response laws.*			
Deliver data security training			

Next Steps

1. Were any gaps in roles or in knowledge of roles identified? If so, for which area(s) and topic(s)?

Area and Topic(s)	Gap

2. Were any redundancies of roles identified? If so, for which area(s) and topic(s)?

Area and Topic(s)	Redundancy

3. Did the data governance assessment and the IT assessment disagree in any areas? If so, for which area(s) and topic(s)?

Area and Topic(s)	Disagreement

4. What are the highest priority areas and topics that require revisions to roles and responsibilities to improve the collaboration between data governance and IT?

Area and Topic(s)	Identified Issue(s)	Desired Future State

5. Identify the steps necessary to address the highest priority areas and topics identified above.

	Action Item	Assigned To	Due Date
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			